

PROCEEDINGS OF LEARNED SOCIETIES.

GEOLOGICAL SOCIETY.

June 5, 1889.—Prof. J. W. Judd, F.R.S.,
Vice-President, in the Chair.

The following communications were read:—

1. "Observations on some undescribed Lacustrine Deposits at Saint Cross, Southelmham, in Suffolk." By Charles Caudler, Esq. (Communicated by Clement Reid, Esq., F.G.S.)

These deposits are situated in the basin of the River Waveney, $3\frac{3}{4}$ miles E. by N. of Harleston, and 9 miles E.N.E. of Hoxne. They occupy a hollow in the Boulder-clay towards the northern edge of the plateau locally known as "High Suffolk." Saint Cross brickyard, which is the only section now visible, shows:—

a. Surface-soil and gravel	ft.
b. Red and white loam, variable, fine or coarse, sandy or calcareous. Elephant, Horse, &c. at base of the bed.....	1-3
c. Fine, tenacious, grey and red clay, with carbonaceous seams towards the base. <i>Valvata</i> , <i>Bythinia</i> , <i>Pisidium</i>	3-5
d. Black peaty loam and sand, worked to a depth of 5 feet, but no bottom reached. Seeds and freshwater shells.....	2-5
e. Chalky Boulder Clay	5-

No implements have yet been found in any of the beds; but Pleistocene Mammalia (determined by Mr. E. T. Newton) occur in bed *b*. From bed *d* Mr. Clement Reid obtained seeds of 29 species of flowering plants. These are all marsh or aquatic species, except the hawthorn and dandelion. Unlike those found in Prof. Prestwich's bed *d* at Hoxne, there are no Arctic forms among them; but the Author pointed out that the Arctic plants of Hoxne were determined from *leaves* found in laminated clays, while the matrix in which the plants are found at St. Cross is only suitable for the preservation of seeds. However, certain of the plants do not range far north, and the occurrence of a large tree in the upper part of bed *d* points to a less rigorous climate than that under which the leaf-bearing beds at Hoxne were deposited.

The lacustrine beds now occupy a ridge between two depressions, the valleys having been deeply eroded, or perhaps formed since the filling-up of the lake. It appears probable that on the final retreat of the last ice-sheet the hollows of the Boulder-clay were occupied by a series of lakes and pools. For the most part the sedimentary deposits formed in these hollows have been entirely swept away; but at Saint Cross the mud and loam of one such lake have been preserved.

2. "On certain Chelonian Remains from the Wealden and Purbeck." By R. Lydekker, Esq., B.A., F.G.S.

In the first part of the paper the Author described a portion of

the hind lobe of a Chelonian plastron from the Wealden, which was remarkable as showing a median row of epidermal shields. The name of *Archæochelys valdensis* was proposed for the form so represented. The new generic term *Hylæochelys* was also proposed for the Purbeck Chelonian described by Sir R. Owen as *Pleurosternum latiscutatum*, and was also taken to include some other forms from the Wealden.

The second section of the paper treated of the affinities of *Pleurosternum*. It was concluded that *Digerrhum*, Cope (as represented by the so-called *Platemys Bullocki*), is identical with *Pleurosternum*, of which there appears to be only one Purbeck species. Evidence was brought forward to show that in the adult of *Pleurosternum* the pubis had a facet for articulation with the xiphiplastral; and it was proposed to refer this genus, together with *Platycheilus* and *Baëna*, to a new section termed "Amphichelydia," which was regarded as allied both to the true Cryptodira and to the Pleurodira.

MISCELLANEOUS.

Triassic Fish-scales from Siberia. By A. SMITH WOODWARD.

So little is known of the palæontology of Siberian formations that a recent memoir by Dr. J. V. Rohon * upon some fragmentary remains of fossil fishes from the Upper Yenisei is of considerable interest and importance. Even detached scales and bone-fragments are worthy of discussion when obtained from such a source; and among other fossils the author describes some unsatisfactory specimens of this character from an undetermined horizon near the village of Kubekowa. These fossils, however, do not appear to have been sufficiently compared with known forms elsewhere. The scales named *Palæoniscus sibiricus* (*loc. cit.* p. 12, figs. 22, 28) are so closely similar to those of the Lepidotoid Ganoid *Colobodus* † that they may be assigned with much probability to this genus; another fragment (*loc. cit.* fig. 21) is sculptured like some of the head-bones of *Colobodus* ‡; and the associated ring-vertebræ (*loc. cit.* figs. 23, 29) may well pertain to the same fish, whereas they indicate a higher stage of development of the axial skeleton than has hitherto been observed in any of the Palæoniscidæ. *Colobodus* has only been recorded as yet from the European Muschelkalk and Lettenkohle, in which it is widely distributed; and the undetermined horizon of *C. sibiricus* may thus be provisionally regarded as Triassic.

* J. V. Rohon, "Ueber fossile Fische vom oberen Jenissei," Mém. Acad. Imp. Sci. St.-Pétersbourg, [7] vol. xxxvi. no. 13 (1889).

† Cf. especially W. Dames, Palæont. Abhandl. vol. iv. (1888), pl. xvi a. figs. 6-8.

‡ Cf. W. Dames, *ibid.* pl. xiv. fig. 1.